REMARKS

Entry of the foregoing and reconsideration of the application identified in caption, as amended, pursuant to and consistent with 37 C.F.R. §1.114 and in light of the remarks which follow, are respectfully requested.

Upon entry of the above amendments, claims 1-17 and 31 are currently pending in the present application. Claims 1 and 7-15 are allowed, and claims 3, 4, 6 and 16 are withdrawn from consideration.

By the above amendments, claims 29 and 30 have been canceled, and the features thereof have been incorporated into claims 2 and 17, respectively. Claims 2 and 17 have also been amended by replacing the word "comprising" with the phrase "consisting essentially of". Support for these amendments can be found in the instant specification at least at page 6, line 13 to page 7, line 2.

Claims 2 and 17 have been amended for clarification purposes by deleting the phrase "having a final shape". Claim 5 has been amended to depend from claim 2, and new claim 31 is directed to the subject matter of claim 5 and depends from claim 17. Claim 7 has been amended for readability purposes by replacing the misspelled word "picolimic" with "picolinic". Entry of the above amendments is proper at least because a Request for Continued Examination is being filed herewith. See 37 C.F.R. §1.114.

In the Official Action, claims 2, 5, 17, 29 and 30 stand rejected under 35 U.S.C. §112, first paragraph, for reciting the term "final shape". Without addressing the propriety of this rejection, and in an effort to expedite prosecution, the term "final shape" has been deleted from claims 2 and 17. Accordingly, withdrawal of this rejection is now in order.

Claims 2, 5 and 17 stand rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 3,655,467 (*Sopp Jr*) combined with U.S. Patent No. 5,104,465 (*McAuliffe et al*). Claims 29 and 30 stand rejected under 35 U.S.C. §103(a) as being obvious over *Sopp Jr* combined with *McAuliffe et al*, and further in view of Electroplating, p. 89, 1978 (*Lowenheim*) and Hackh's Chemical Dictionary, 4th Ed., p. 31, 1969. Withdrawal of these rejections is respectfully requested for at least the following reasons.

According to one aspect of the present invention as defined by claim 2, a method for treating the surface of an aluminum alloy high-temperature processed article is provided. The method consists essentially of processing an aluminum alloy containing Mg at a high temperature of 200°C or above to form the alloy into a processed article, etching the surface of the processed article with an aqueous solution containing a chelating agent, and then carrying out coating type chromating, wherein an oxide layer is formed on the surface of the article during the step of processing the aluminum alloy containing Mg, and wherein the oxide layer is decreased or removed by the step of etching the surface of the processed article with an aqueous solution containing a chelating agent.

Claim 17 is also directed to a method for treating the surface of an aluminum alloy high-temperature processed article.

Sopp Jr does not disclose or suggest each feature of aspects of the present invention as defined by claims 2 and 17. For example, *Sopp Jr* does not disclose or suggest a method consisting essentially of, *inter alia*, processing an aluminum alloy containing Mg at a high temperature of 200°C or above to form the alloy into a processed article, as recited in claims 2 and 17.

McAuliffe et al fails to cure the above-described deficiency of *Sopp Jr.* In this regard, the Patent Office has relied on *McAuliffe et al*'s disclosure of a process for producing an aluminum alloy (Official Action, Paper No. 27, at page 5). As noted by the Patent Office, *McAuliffe et al* discloses that an alloy is cast and then held for 2 to 15 minutes between 400°C and the alloy's liquidus temperature, then hot rolled at a temperature between 300°C and the non-equilibrium solidus temperature, and coiled and cooled to room temperature (col. 3, lines 21-39). *McAuliffe et al* further discloses that a first cold rolling stage reduces the thickness of the alloy by at least 50 percent, and a second cold rolling stage results in further reduction of up to 75 percent (col. 3, lines 39-43).

Like *Sopp Jr*, *McAuliffe et al* does not disclose or suggest a method consisting essentially of, *inter alia*, processing an aluminum alloy containing Mg at a high temperature of 200°C or above to form the alloy into a processed article. That is, claims 2 and 17 recite that the alloy is formed into a processed article at a high temperature of 200°C or above. As discussed in the specification at page 6, lines 13-17, the inventive methods can enable the reduction or elimination of technical problems associated with high-temperature processing, such as processing at temperatures of 200°C or above. Such technical problems are not caused in cold processing, i.e., processing that is not carried out at high temperatures.

By comparison, the *McAuliffe et al* process includes forming an alloy by subjecting same to a first cold rolling stage conducted at room temperature which reduces the thickness of the alloy, and a second cold rolling stage that results in further reduction of such thickness. In light of the fact that in the *McAuliffe et al* process, the alloy is formed by subjecting same to a cold rolling stage conducted at room temperature, it is clear that such process is not the same as or

suggestive of the claimed method which consists essentially of, *inter alia*, processing an aluminum alloy containing Mg at a high temperature of 200°C or above to form the alloy into a processed article. The "consisting essentially of" phrase recited in claims 2 and 17 is effective to exclude *McAuliffe et al*'s process in which the alloy is formed by conducting a cold rolling stage at room temperature.

Furthermore, neither *Sopp Jr* nor *McAuliffe et al* discloses or suggests that an oxide layer formed on the surface of the article during the step of processing the aluminum alloy containing Mg, is decreased or removed by the step of etching the surface of the processed article with an aqueous solution containing a chelating agent, as recited in claim 2. Similarly, the applied art does not disclose or suggest that an oxide layer formed on the surface of the article during the step of processing the aluminum alloy containing Mg, is decreased or removed by the step of etching the surface of the processed article by a single step process of exposing the surface to an aqueous solution containing a chelating agent, as recited in claim 17.

In fact, *Sopp Jr* and *McAuliffe et al* do not even disclose that an oxide layer is formed on the surface of the article, let alone that such oxide layer is decreased or removed by the step of etching the surface of the processed article with an aqueous solution containing a chelating agent (as recited in claim 2), or by the step of etching the surface of the processed article by a single step process of exposing the surface to an aqueous solution containing a chelating agent (as recited in claim 17).

In this regard, it appears that the Patent Office has asserted that the *McAuliffe et al* article would inherently have an oxide layer on the surface thereof, in view of the characteristics of aluminum alloys disclosed by *Lowenheim* and Hackh's Chemical Dictionary. However, in light

of the fact that the cold rolling stages disclosed by *McAuliffe et al* can be effective to remove an oxide layer formed on the article, it is not certain that an oxide layer is present on the surface of the *McAuliffe* article.[1]

In this regard, the legal standard for inherency is well established. In order for prior art to anticipate a claimed invention, the inherency must be certain. Ex parte Cyba, 155 USPQ 756 (POBA 1966). The fact that a prior art article "may" inherently have the characteristics of the claimed product is not sufficient. Ex parte Skinner, 2 USPQ2d 1788 (BPAI 1986). Inherency must be a necessary result and not merely a possible result. In re Oelrich, 212 USPQ 323 (CCPA 1981).

Here, the Patent Office has not established inherency of the claimed features in question, with the requisite certainty. In light of the fact that *McAuliffe et al* discloses subjecting the alloy thereof to two separate cold rolling stages, it is far from certain that the resulting alloy has an oxide layer on the surface thereof. Simply put, *Sopp Jr* and *McAuliffe et al* do not disclose or suggest that an oxide layer formed on the surface of the article during the step of processing the aluminum alloy containing Mg, is decreased or removed by the step of etching the surface of the processed article with an aqueous solution containing a chelating agent (as recited in claim 2), or by the step of etching the surface of the processed article by a single step process of exposing the surface to an aqueous solution containing a chelating agent (as recited in claim 17).

For at least the above reasons, it is apparent that no *prima facie* case of obviousness exists. Accordingly, withdrawal of the above §103(a) rejections is respectfully requested.

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[1]In order to show the effect a rolling process can have on an oxide layer, attached for the Examiner's consideration is an abstract of Japanese Patent Document No. 58-187258, which states that when an alloy is rolled, an oxidized film formed on the surface is broken down.

From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order, and such action is earnestly solicited. If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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